

Attorney Docket No.: 6520.200-US
Serial No.: 10/619,237
Filed: July 14, 2003
Title: Medical Delivery Device
Via Facsimile No.: 571-273-8300

IN THE CLAIMS:

1. (Withdrawn) A delivery device (1, 100), comprising:
 - a reservoir (40) having outlet means, the reservoir being adapted to contain an amount of a liquid drug,
 - expelling means (33, 41, 52) for in a situation of use expelling drug out of the reservoir through the outlet means,
 - actuating means (20, 120) for actuating the expelling means,
 - wherein the expelling means upon actuation performs a cycle of expelling a pre-determined amount of drug contained in the reservoir during a period of approximately 7-9 hours after which period expelling is stopped.
2. (Withdrawn) A delivery device as defined in claim 1, wherein the reservoir comprises a pre-filled amount of drug.
3. (Withdrawn) A delivery device (100) as defined in claim 1, wherein the expelling means is adapted to perform a plurality of cycles, each cycle being initiated by actuation of the actuation means.
4. (Withdrawn) A delivery device as defined in claim 3, further comprising timing means preventing actuation of the expelling means for performing a further cycle before a preset period of time has lapsed since the previous cycle.
5. (Withdrawn) A delivery device (1) as defined in claim 1, wherein substantially the entire drug contained in the reservoir is expelled during a single cycle.

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6. (Withdrawn) A delivery device as defined in claim 1, wherein the drug is insulin-containing.
7. (Withdrawn) A delivery device as defined in claim 5, wherein the reservoir comprises an amount of insulin in the range of 10-50 IU.
8. (Withdrawn) A delivery device as defined in claim 1, further comprising a mounting surface adapted for application against the skin of a subject.
9. (Withdrawn) A delivery device as defined in claim 8, further comprising a delivery needle communicating in a situation of use with the interior of the reservoir and adapted to penetrate the skin of the patient, the delivery needle protruding from the mounting surface.
10. (Withdrawn) A delivery device as defined in claim 8, further comprising a delivery needle communicating in a situation of use with the interior of the reservoir and adapted to penetrate the skin of the patient, the delivery needle being moveable between a first position in which it is positioned within the device, and a second position in which it is protruding from the mounting surface.
11. (Withdrawn) A delivery device as defined in claim 10, further comprising needle advancing means for moving the needle from its first to its second position.
12. (Withdrawn) A delivery device as defined in claim 11, wherein the needle advancing means is associated with the actuating means such that the action of advancing the needle will actuate the expelling means.

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13. (Withdrawn) A delivery device as defined in claim 8, wherein the mounting surface comprises adhesive means allowing the device to be arranged against and attached to a skin surface of the subject.

14. (Withdrawn) A delivery device as defined in claim 1, further comprising first and second portions adapted to releasably engage each other, the first portion comprises the reservoir and the second portion comprising control means, the expelling means being adapted to be controlled by the control means.

15. (Withdrawn) A delivery device (200) as defined in claim 1, further comprising:

- a first portion (210) comprising a pointed needle end adapted to penetrate the skin of a subject and inlet means in flow communication with the pointed needle end, and
- a second portion (220) comprising a reservoir adapted to contain a liquid drug and having an outlet means allowing the inlet means to be arranged in fluid communication with the reservoir and expelling means for, in a situation of use, expelling a drug out of the reservoir and through the skin of the subject via the pointed needle end,
- the first and second portions comprising mating coupling means (211, 221) allowing the first and second portions to releasably engage each other to form a unitary device.

16. (Withdrawn) A delivery device as defined in claim 15, wherein the first portion comprises a lower surface, the pointed needle end being moveable between an initial position in which the pointed needle end is retracted relative to the lower surface, and a second position in which the pointed end of the first needle portion projects relative to the lower surface.

17. (Withdrawn) A delivery device as defined in claim 16, wherein the lower surface is in

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the form of a mounting surface adapted for application against the skin of the subject.

18. (Withdrawn) A system comprising at least two delivery devices, each delivery device as defined in claim 2 and any claim dependent thereto, wherein each delivery device in its reservoir contains a different amount of insulin, thereby allowing a patient to be provided with the most suitable infusion device among the at least two infusion devices.

19-29. (Cancelled)

30. (New) A method for the treatment of a patient suffering from a decease, comprising the steps of:

- providing a delivery device adapted to deliver an amount of a drug beneficial for the treatment of the decease, the delivery device comprising a lower surface provided with adhesive means and adapted to be arranged against and attached to a skin surface of the patient,
- at a given time attaching the delivery device to a skin surface of the patient and establish a fluid communication between the delivery device and the body of the patient,
- delivering a therapeutic amount of the drug during a period of approximately 7-9 hours, and
- discontinuing delivery of the drug to the patient after approximately 7-9 hours and removing the delivery device from the skin surface of the patient,
- wherein the fluid communication is established at a time after which the patient is expected to sleep for a period of approximately 7-9 hours, the drug being infused substantially corresponding to the period of sleep, and
- wherein no delivery device is attached to a skin surface of the patient during a period between two periods of sleep of approximately 7-9 hours.

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31. (New) A method as in claim 30, wherein the drug is insulin-containing.
32. (New) A method as in claim 30, wherein the delivery device contains an amount of insulin in the range from 5 to 50 IU.
33. (New) A method as in claim 30, wherein the fluid communication is provided by arranging the delivery device against a skin surface of the patient, and the fluid communication is disconnected by removing the delivery device from the patient.
34. (New) A method as in claim 30, wherein the delivery device comprises:
- a reservoir having outlet means, the reservoir being adapted to contain an amount of a liquid drug,
 - expelling means for in a situation of use expelling drug out of the reservoir through the outlet means,
 - actuating means for actuating the expelling means,
 - wherein the expelling means upon actuation performs a cycle of expelling a pre-determined amount of drug contained in the reservoir during a period of approximately 7-9 hours after which period expelling is stopped.